NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date:

Region: Winston-Salem Regional Office
County: Guilford
NC Facility ID: 4100272
Inspector's Name: Davis Murphy
Date of Last Inspection: 05/04/2016
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Colonial Pipeline Company

Facility Address:
Colonial Pipeline Company
411 Gallimore Dairy Road
Greensboro, NC 27409

SIC: 4613 / Refined Petroleum Pipe Lines
NAICS: 48691 / Pipeline Transportation of Refined Petroleum Products

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D .0516, 02D .0521, 02D .0524, 02D .0925, 02D .0927, 02D .1111, 02D .1806
NSPS: NSPS JJJJ
NESHAP: MACT R, MACT ZZZZ, MACT GGGGG
PSD: NO
PSD Avoidance: NO
NC Toxics: NO
112(r): NO
Other: Title V permit renewal

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Faron Leigh Environmental Specialist (336) 931-6061 411 Gallimore Dairy Road Greensboro, NC 27409	Darren Pruitt Operations Manager (336) 931-6025 411 Gallimore Dairy Road Greensboro, NC 27409	Faron Leigh Environmental Specialist (336) 931-6061 411 Gallimore Dairy Road Greensboro, NC 27409

Application Data

Application Number: 4100272.16A, 4100272.17A
Date Received: 12/28/2016, 01/19/2017
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 02939/T22
Existing Permit Issue Date: 10/29/2012
Existing Permit Expiration Date: 09/30/2017

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2015	0.2000	3.04	452.70	2.58	1.88	26.73	8.26 [Toluene]
2014	0.2000	3.01	413.98	2.53	2.42	24.57	7.61 [Toluene]
2013	0.2000	3.01	485.42	2.53	1.33	27.97	8.40 [Toluene]
2012	0.2000	3.02	346.83	2.53	1.89	21.72	6.81 [Toluene]
2011	0.2000	3.02	327.50	2.54	0.2400	20.41	6.40 [Toluene]

Review Engineer: Betty Gatano

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 02939/T23
Permit Issue Date:
Permit Expiration Date:

1. Purpose of Application

Colonial Pipeline Company – Greensboro Facility (Colonial) currently holds Title V Permit No. 02939T22 with an expiration date of September 30, 2017 for a pipeline breakout station in Greensboro, Guilford County, North Carolina. This permit application is for a permit renewal. The renewal application was received on December 28, 2016, or at least nine months prior to the expiration date, as required by General Permit Condition 3.K. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

A permit application for a minor modification under 15A NCAC 02Q .0515 was received on January 19, 2017. Under the permit application, Colonial is requesting to modify the current permit as follows:

- Modify the existing distillate storage tank (ID No. 878) to store biodiesel fuel.
- Add two biodiesel truck unloading racks (ID No. I27).
- Add a secondary containment sump at the truck unloading racks (ID No. I29).
- Add an injection skid and related equipment (ID No. I30).
- Add fugitives from the equipment components in biodiesel services (ID No. I28).

This application for a minor modification will be consolidated and processed with the application for TV permit renewal.

2. Facility Description

Colonial is a pipeline breakout station located in Greensboro, NC. Gasoline and distillate lines enter the site through two pipelines, one measuring 40" and the other 36" in diameter. Products are pumped into a tank farm at this site, and reintroduced into outgoing pipelines to be piped to nearby bulk gasoline terminals, or to be sent further down the pipeline. A handful of reciprocating internal combustion engines provide backup power and fulfill other needs at this site.

A biodiesel unloading/blending process is being added under this permit renewal/modification. Information on this process is discussed in Section 5 below.

3. History/Background/Application Chronology

October 29, 2012	TV permit renewed. Air Permit No. 02939T22 was issued on October 29, 2012 with an expiration date of September 30, 2017.
December 28, 2016	Received Permit Application No. 4100272.16A for permit renewal.
January 6, 2017	Sent acknowledgment letter indicating that the application for permit renewal was complete.
January 19, 2017	Received Permit Application No. 4100272.17A for a minor modification to add a biodiesel unloading/blending process.

January 26, 2017	DAQ issued an acknowledgement letter allowing Colonial to implement the changes proposed in permit application No. 4100272.17A immediately, provided the facility complied with both the applicable requirements governing the changes and the proposed permit terms and monitoring, recordkeeping, and reporting conditions identified in the application.
February 2, 2017	Betty Gatano sent an e-mail to Judy Hoff, consultant to the facility, regarding the status of the engines at the facility.
February 7, 2017	The Winston-Salem Regional Office (WSRO) submitted comments on the permit renewal application.
February 8, 2017	Betty Gatano sent an e-mail to Judy Hoff regarding the status of several tanks at the facility.
March 20, 2017	Received responses to e-mails from Judy Hoff.
March 21, 2017	Forwarded draft permit and permit review for comments.
March 30, 2017	Received comments from Jeff Twisdale, Permitting Supervisor.
April 7, 2017	Received comments from Davis Murphy of the WSRO.
April 20, 2017	Received comments from Judy Hoff. The comments requested the permit incorporate alternative monitoring under MACT Subpart R, which had been allowed in a memorandum from DAQ dated September 3, 2003. This change was made to the draft permit.
May 1, 2017	Draft forwarded to public notice.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the changes to the current permit under the permit renewal/modification.

Previous Permit		New Permit		Description of Changes
Page No.	**Section**	**Page No.**	**Section**	
Cover and throughout	--	Cover and throughout	--	Updated all dates and permit revision numbers.
--	Insignificant Activities List	--	Insignificant Activities List	• Removed the portable gasoline fired IC engine (ID No. I25). This emission source is considered a nonroad mobile source and does not require permitting. • Added two biodiesel truck unloading racks (ID No. I27). • Added a secondary containment sump at the truck unloading racks (ID No. I29). • Added an injection skid and related equipment (ID No. I30). • Added fugitives from the equipment components in biodiesel services (ID No. I28). • Added one LPG-fired emergency generator (ID No. IES-9) • Added two LPG-fired emergency generators (ID Nos. IES-10 and IES-11) • Added one LPG-fired emergency generator (ID No. IES-21) • Added one LPG-fired emergency generator (ID No. IES-26) • Updated footnotes.
--	Table of Contents	--	Table of Contents	Added Section 2.2 for Multiple Emission Sources.
3 – 6	Section 1.0 Equipment List	3 – 6	Section 1.0 Equipment List	• Added page numbers. • Moved emergency engines (ID Nos. IES-9, IES-10, IES-11, IES-21, and IES-26) to the insignificant activities list. • Removed the portable generators (ID Nos. PICE1, PICE2, and PICE3). These emission sources are considered nonroad mobile sources and do not require to be permitted. • Updated description of the vertical fixed roof biodiesel fuel storage tank (ID No. 878). • Added "MACT Subpart R" labels for the transmix tanks (ID Nos. 885 through 898).
6	2.1 A Equipment List	6	2.1 A Equipment List	Clarified storage tank descriptions (ID Nos. 885 through 898)
7	2.1 A.1.b	7	2.1 A.1.b	Modified noncompliance statement.

Previous Permit		New Permit		Description of Changes
Page No.	**Section**	**Page No.**	**Section**	
7 – 8	2.1 B	7 – 8	2.1 A.2	Moved permit condition for 15A NCAC 02D .0927 because it is applicable to the same sources as specified under Section 2.1 A of the permit.
8	2.1 B.1.c and d	7	2.1 A.2.c and d	Removed reference to the compliance date. These tanks have already been painted white and self-supporting roofs have been installed.
8	2.1 B.1.g	7	2.1 A.2.g	Modified noncompliance statement.
9	2.1 C	--	--	Moved permit condition for 15A NCAC 02D .1806 to section 2.2 for multiple emission sources because this regulation is applicable facility-wide.
9 – 12	2.1 D	--	--	Moved permit condition for 15A NCAC 02D .1111 to section 2.2 for multiple emission sources because this regulation is applicable to multiple emission sources (e.g., gasoline storage tanks, transmix storage tanks, and fugitive components).
12	2.1 E	8	2.1 B	• Renumbered permit. • Updated storage tank description (ID No. 878).
13 – 19	2.1 F	--	--	Removed permit condition related to engines for the following reasons: • Removed portable generators (ID Nos. PICE1, PICE2, and PICE3). These emission sources are considered nonroad mobile sources and do not require to be permitted. • Moved emergency generators (ID Nos. ES-9, ES-10, ES-11, ES-21, and ES-26) to the insignificant activities list.
20	2.1 G	8 – 9	2.1 C	Renumbered permit.
9 – 12	2.1 D	10 – 15	2.2 A	Moved permit condition for 15A NCAC 02D .1111 to section 2.2 for multiple emission sources because this regulation is applicable to multiple emission sources (e.g., gasoline storage tanks, transmix storage tanks, and fugitive components).
9	2.1 D Equipment List	10	2.2 A Equipment List	Clarified storage tank descriptions (ID Nos. 885 through 898)
11 – 12	2.1. D.1	10 – 15	2.2 A.1	Revised permit condition to provide more specifics on requirements under 40 CFR 63 Subpart R.
--	--	12	2.2 A.1.f.iv	In accordance with 40 CFR 63.8(f)(2), added minor alternatives to the out of service inspections procedures approved by DAQ in a memorandum entitled "Alternative Gasoline Tank Inspection Methods," dated September 2, 2003.

Previous Permit		New Permit		Description of Changes
Page No.	Section	Page No.	Section	
9	2.1 C	15	2.2 B	Moved permit condition for 15A NCAC 02D .1806 to section 2.2 for multiple emission sources because this regulation is applicable facility-wide.
21 – 32	3.0	16 – 26	3.0	Updated the General Conditions and the List of Acronyms to the most current version (V4.0: 12/17/2015).

The following changes were made to the TVEE under this permit renewal/modification.

- Removed the portable gasoline fired IC engine (ID No. I25).
- Removed the portable engines (ID Nos. PICE1, PICE2, and PICE3).
- Made emergency generators (ID Nos. IES-9, IES-10, IES-11, IES-21, and IES-26) insignificant activities.
- Added two biodiesel truck unloading racks (ID No. I27).
- Added a secondary containment sump at the truck unloading racks (ID No. I29).
- Added an injection skid and related equipment (ID No. I30).
- Added fugitives from the equipment components in biodiesel services (ID No. I28).
- Modified the vertical fixed roof biodiesel fuel storage tank (ID No. 878).
- Added "MACT Subpart R" label to transmix storage tanks.

5. Minor Modification

Tank 878 at Colonial is a vertical fixed roof of 43,000-barrel capacity (~1,800,000 gallon), which is currently used to store distillate, such as No. 2 fuel oil or kerosene jet fuel. For this project, Colonial is proposing to modify this tank to store biodiesel fuel rather than distillate. Colonial plans to lease a portion of the site to a biodiesel supplier, who will install an independently owned truck unloading station to unload biodiesel fuel into the tank. New electric heaters and pumps will facilitate movement of the biodiesel fuel to a new metering skid. From the skid, the biodiesel fuel will be injected into any of the three existing Colonial pipe lines, resulting in a blended product typically composed of 95% distillate and 5% biodiesel fuel. The biodiesel truck unloading area will consist of two biodiesel truck unloading racks (ID No. I27), a secondary containment sump (ID No. I29), and an injection skid and related equipment (ID No. I30).

The primary emissions from the biodiesel unloading/blending process will be volatile organic compounds (VOCs). Emissions from Tank 878 and the secondary containment separator were calculated using the USEPA's TANKS 4.09D software. Vapor pressure of the biodiesel fuel can vary from 0.02 to 2 mm Hg (0.00039 to 0.039 psi) at 68^{o}F. For a conservative estimate of emissions, a vapor pressure of 2 mm Hg for a tank heated to 68^{o}F for six months of the year (fall and winter) and not heated during the other six months (spring and summer) was used in the TANKS program. The estimated emissions are provided in the table below. Emissions from the tank truck unloading rack are included in the working losses of the Tank 878, while emissions from the injection skid and equipment components are considered negligible.

Pollutant	Emissions from Tank 878 prior to modification (tpy)	Emissions after modification (tpy)	Difference in Emission (tpy)
VOC	1.1	3.5	2.4
Notes: Emissions after modification include emissions from the secondary containment sump. Emissions from other sources considered negligible.			

As shown above, converting the tank to biodiesel fuel and adding the truck unloading area will result in an emission increase of 2.4 tons per year of VOC. This increase is below significance level under Prevention of Significant Deterioration (PSD) and does not trigger a PSD analysis.

The biodiesel fuel may contain methanol, which is a hazardous air pollutant (HAP) but not a toxic air pollutant. Colonial is an existing major source of HAPs, and this modification does not affect the HAP status of the facility. Additionally, the facility is not currently subject to NC Air Toxics, and this modification does not affect the air toxics status of the facility.

All the emission sources to be added are considered "insignificant activities because of size or production rate" as defined in 15A NCAC 02Q .0503(8) and will be added to the insignificant activities list. Potential VOC emissions from Tank 878 are also less than 5 tons per year. However, the facility requested to leave this tank in the body of the permit rather than moving it to the insignificant activities list.

Tank 878 is not currently subject to any air quality regulations. Rule applicability for Tank 878 after modification is discussed in this section.

- 15A NCAC 02D .0925, "Petroleum Liquid Storage in Fixed Roof Tanks" – This rule applies to fixed roof storage tanks with capacities greater than 39,000 gallons containing VOC liquids whose true vapor pressure is greater than 1.52 psi. Tank 878 is not subject to this rule because the biodiesel fuel to be stored in the tank has a vapor pressure of less than 0.04 psi (2 mm Hg) at 68 ^{o}F.

- 40 CFR 60 Subpart Kb, "Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after July 23, 1984" – This rule is applicable to storage vessels with a capacity greater than or equal to 75 m^3 (~20,000 gallons) used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. However, the rule does not apply to storage vessels with a capacity greater than or equal to 151 m^3 (~40,000 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kPa (0.51 psi). Although this project meets the definition of modification under 40 CFR Part 60 Subpart A, Tank 878 will not be subject to this rule after modification because the biodiesel fuel being stored has a vapor pressure of less than 0.027 kPa (0.004 psi) at 68 ^{o}F.

- 40 CFR 63 Subpart EEEE, "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)" – This rule is applicable to organic liquid distribution (OLD) operations located at a major source of HAPs. Organic liquid is defined, in part, as any non-crude oil liquid or liquid mixture that contains 5 % by weight or greater of any organic HAPs listed in Table 1 of 40 CFR 63 Subpart EEEE. Methanol is the only HAP expected in the

biodiesel fuel, and methanol is estimated at maximum 0.2 % by weight of the biodiesel fuel. Thus, biodiesel fuel stored in Tank 878 does not meet the definition of an organic liquid, and the tank will not be subject to 40 CFR 63 Subpart EEEE after modification.

6. Permitting of Engines at Colonial

Emergency Generators (ID Nos. ES-9, ES-10, ES-11, ES-21, and ES-26)
The permit for Colonial currently includes the following emergency generators:

Emission Source ID No.	Emission Source Description
ES-9	One LPG-fired emergency generator (112 kW; 150 hp)
ES-10 and ES-11	Two LPG-fired emergency generators (12.5 kW; 17 hp, each)
ES-21	One LPG-fired emergency generator (94 kW; 126 hp)
ES-26	One LPG-fired emergency generator (21.7 kW, 29.1 hp)

These engines are all subject to "National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines," 40 CFR Part 63 Subpart ZZZZ. Previously, DAQ had a policy of requiring emission sources at Title V facilities to comply with 15A NCAC 02Q .0102(b)(6), even though the rule says explicitly that it is not applicable to Title V facilities. Thus, the engines were added/moved to the insignificant activities list regardless of their emission rates.

This policy has since been redacted, and regulation 15A NCAC 02Q .0102(b)(6) has been repealed. Insignificant activities at Title V facilities are now determined based solely on 15A NCAC 02Q .0503(7), "Insignificant by Category," or 15A NCAC 02Q .0503(8), "Insignificant by Size or Production Rate." The engines at Colonial meet the definition of insignificant under 15A NCAC 02Q .0503(8), as shown in the following table.

Emission Source ID	Emissions (tons/yr)				
	PM/PM10/PM2.5	NOx	SOx	CO	VOC
ES-9	0.00	1.30	0.00	0.18	0.04
ES-10	0.00	0.15	0.00	0.02	0.00
ES-11	0.00	0.15	0.00	0.02	0.00
ES-21	0.00	1.09	0.00	0.15	0.03
ES-26	0.00	0.25	0.00	0.03	0.01

Notes:
- Emissions calculated using emission factors in Table 3.2-2 from US EPA AP-42 (August 2000), for a four stroke, lean burning engine. Emission factors were converted to lb/hp-hr, assuming a 30% efficiency as per guidance in earlier version of US EPA AP-42 (Supplement B 10/1996).
- Annual emissions assume 500 hours of operation per year for emergency engines.

These engines will be moved to the insignificant activities list under this permit renewal/modification. However, they remain subject to all applicable rules including MACT Subpart ZZZZ. Continued compliance is anticipated.

Portable Engines (ID Nos. I25, ES-PICE1, ES-PICE2, and PICE3)
The permit for Colonial currently includes the following portable engines.

Emission Source ID No.	Emission Source Description
I25	Portable 20 hp gasoline-fired IC engine powering a welder
ES-PICE1 ES-PICE2	Two portable diesel-fired internal combustion engines (75 hp) powering air compressors
ES-PICE3	One portable diesel-fired internal combustion engine (40 hp) powering a welder

During this permit renewal/modification, the applicability of these engines was reviewed with respect to several regulations to ensure these engines were being permitted correctly.

Under Clean Air Act (CAA) section 302(z), a "stationary source" is defined as "... any source of air pollution except those emissions resulting directly from an internal combustion engine for transportation purposes or from a nonroad engine or nonroad vehicle as defined in section 216." As stated above, one exception from the definition of a stationary source is direct emissions from nonroad engines. CAA section 216(10) defines a "nonroad engine" as "an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to the standards promulgated under section 7411 JCAA § 11.1.] of this title or section 7521 [CAA § 202] of this title." Additionally, as specified in EPA's regulations at 40 CFR 89.2, a nonroad engine is defined as the following:

(1) Except as discussed in paragraph (2) of this definition, a nonroad engine is any internal combustion engine:
  (i) In or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or
  (ii) In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
  (iii) That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

(2) An internal combustion engine is not a nonroad engine if:
  (i) the engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the Act; or
  (ii) the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the Act; or
  (iii) the engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that

operates at that single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location.

Embedded in this definition of nonroad engine is the requirement that the engine not be regulated by a New Source Performance Standard (NSPS). EPA has addressed this issue previously. EPA has indicted in two applicability determinations that nonroad engines are not subject to "NSPS for Stationary Compression Ignition Internal Combustion Engines," 40 CFR Part 60, Subpart IIII, or "National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines," 40 CFR Part 63 Subpart ZZZZ. A summary of these two applicability determinations are provided below:

EPA Applicability Determination: M150026, dated 09/19/2013

The emission source in question was a mobile power generator in Springdale, Arkansas designed to supply electrical power on a temporary basis, at various locations within the Kawneer Springdale Plant. The engine did not remain at any location greater than 12 months. The EPA determined that NSPS Subpart IIII and NESHAP Subpart ZZZZ did not apply because this engine was considered a nonroad mobile source. The mobile generator was a wheeled unit and its engine met the criteria for a nonroad engine that it be by itself or in or on a piece of equipment that was portable or transportable. Furthermore, it would not remain in a single location for longer than 12 consecutive months.

EPA Applicability determination: M090038, dated 12/05/2008

The emission source in question was a 1,825 kW diesel generator at the Hibbing Taconite Company in Hibbing, Minnesota. The generator was used to move electric rope shovels, electric power drills, and the electrically powered tailings basin dragline around the mine. In the permit application, Hibbing Taconite Company asserted that the engine qualified as a nonroad engine, because the generator was regularly moved throughout the facility, approximately once every seven days. The EPA determined the engine qualified as a nonroad, nonstationary engine and was not subject to MACT Subpart ZZZZ or NSPS Subpart IIII.

Engines (ID Nos. PICE1, PICE2, and PICE3) are regularly moved throughout the facility and are not stationary at one location for a period of more than 12 months. Therefore, the engines are classified as non-road engines and are not subject to NSPS Subpart IIII or JJJJ or MACT Subpart ZZZZ. Further, mobile sources, such as nonroad engines, are exempt from TV permitting as specified under 15A NCAC 02Q .0503(7), "Insignificant Activities by Category."

For the reasons given above, the portable engines at Colonial are determined to be nonroad mobile sources, and no air permit is required for operation of these engines. They will be removed from the permit under this permit renewal/modification.

7. Regulatory Review

Colonial is subject to the following regulations. The permit will be updated to reflect the most current stipulations for all applicable regulations.

- 15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources – The LPG-fired emergency generators (ID Nos. IES-9 though IES-11, IES-21, and IES-26) are subject to 02D .0516. No monitoring, recordkeeping, or reporting (MRR) is required when firing LPG in these

combustion sources because of the low sulfur content of the fuel. This fuel is inherently low enough in sulfur that continued compliance is expected. The permit will be updated to move the emergency generators to the insignificant activities list under this renewal/modification, as these emission sources meet the definition of insignificant activities by size or production under 15A NCAC 02Q .0503(8). No other changes to the permit are required, and continued compliance is anticipated.

- 15A NCAC 02D .0521, Control of Visible Emissions – The LPG-fired emergency generators (ID Nos. IES-9 though IES-11, IES-21, and IES-26) subject to 02D .0521. No MRR is required when firing diesel fuel or LPG in these combustion sources. As noted above, the permit will be updated to move the emergency generators to the insignificant activities list under this renewal/modification, as these emission sources meet the definition of insignificant activities by size or production under 15A NCAC 02Q .0503(8). No other changes to the permit are required, and continued compliance is anticipated.

- 15A NCAC .02D .0524, New Source Performance Standards (NSPS) – Two emergency engines (ID Nos. IES-21 and IES-26) are subject to "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines," 40 CFR 60 Subpart JJJJ. More discussion on NSPS is provided in Section 8.

- 15A NCAC 02D .0925, Petroleum Liquid Storage in Fixed Roof Tanks – The thirty-two internal floating roof gasoline storage tanks (ID Nos. 810 through 818, 820 through 826, and 830 through 845) and the fourteen internal floating roof transmix[1] tanks (ID Nos. 885 through 898) are subject to 02D .0925. The tanks must be equipped with internal floating roof with seals and ensure that all openings equipped with covers, lids, or seals and no visible holes, tears or other openings are present in the seals. Colonial conducts and records monthly inspections of the tanks and records tank temperature and throughput amounts in accordance with 02D .0925. No changes to the permit are required under this permit renewal/modification, and continued compliance is anticipated.

  Tank 878 is being modified under this permit application to store biodiesel fuel rather than distillate. With this change, Tank 878 is no longer subject to 02D .0925.

- 15A NCAC 02D .0927, Bulk Gasoline Terminals – The thirty-two internal floating roof gasoline storage tanks (ID Nos. 810 through 818, 820 through 826, and 830 through 845) and the fourteen internal floating roof transmix tanks (ID Nos. 885 through 898) are subject to 02D .0927 The tanks must meet various work practice standards including being painted white or silver and being equipped with a dome with internal floating roof and seals Colonial conducts and records monthly inspections of the tanks and conducts and maintains associated records in accordance with 02D .0927. This condition was moved to Section 2.1 A to streamline the permit. The compliance date for painting the tanks and installing a self-supporting roof was removed as these requirements have been met. No other changes are required under this permit renewal/modification, and continued compliance is anticipated.

- 15A NCAC 02D .1111, Maximum Achievable Control Technology (MACT) – Colonial is subject to the following MACT standards:

[1] "Transmix" is a mixture of refined products that form when transported in pipelines. This mixture is typically a combination of gasoline, diesel, and/or jet fuel.

- NESHAP for Gasoline Distribution Facilities, 40 CFR 63 Subpart R.
- NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart ZZZZ.
- NESHAP for Site Remediation, 40 CFR 63 Subpart GGGGG.

More discussion on MACTs is provided in Section 8.

- 15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions – This rule is state-enforceable only and applicable facility-wide. The permit condition was moved to Section 2.2, "Multiple Emission Sources" as part of this permit renewal/modification. Continued compliance is anticipated.

8. NSPS, NESHAPS/MACT, NSR/PSD, 112(r), CAM

NSPS

The two LPG-fired emergency generators (ID No. IES-21 and IES-26) are subject to "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines," 40 CFR 60 Subpart JJJJ. (NSPS Subpart JJJJ). The requirements for these engines under NSPS Subpart JJJJ are provided in the table below.

Emission Source ID	Requirements
IES-21	Colonial commenced construction of the engine after June 12, 2006, but the engine was manufactured prior to January 1, 2009, which is the applicability date in 40 CFR 60.4230(a)(4)(iv). Therefore, this engine has no requirements under NSPS Subpart JJJJ. It should be noted that U.S. EPA is aware of this apparent "hole" in applicability of this standard to these emergency engines and has stated that it may address these units at a later date.
IES-26	Colonial commenced construction of the engine after June 12, 2006 and the engine was manufactured after January 1, 2009, which is the applicability date in 40 CFR 60.4230(a)(4)(iv). Colonial complies with this rule by purchasing an engine certified according to the procedures in 40 CFR 60 Subpart JJJJ for the 2009 model year. The facility is also required to conduct associated recordkeeping and reporting as required under this rule.

These engines meet the definition of insignificant activities under 15A NCAC 02Q .0503(8) and will be moved to the insignificant activity list under this permit renewal/modification. Continued compliance with the NSPS Subpart JJJJ is anticipated.

NESHAPS/MACT

The facility is classified as a Title III major facility, and is subject to the MACT standards discussed in this section.

MACT Subpart R

The gasoline and transmix storage tanks and associated fugitive components (valves, flanges, connectors, etc.) at Colonial are subject to the "NESHAP for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)," 40 CFR 63 Subpart R (MACT Subpart R). The rule establishes standards for storage vessels, loading racks, and equipment leaks at gasoline distribution facilities. Colonial has no gasoline loading racks as it is a break out station. Under MACT Subpart R, the facility must maintain an internal floating roof and seals on

the storage tanks, conduct monthly leak inspections, and make appropriate repairs of the fugitive components. The rule also requires associated recordkeeping and reporting requirements. The permit condition was updated under this permit renewal/modification to specify more clearly the requirements under MACT Subpart R. The revised permit condition is provided in Attachment 1 for reference. The permit condition was also moved to Section 2.2 of the permit because it affects multiple emission sources.

On October 16, 2009, the D.C. Circuit Court of Appeals issued a mandate vacating the Startup, Shutdown and Malfunction ("SSM") exemptions contained in the General Provisions of the NESHAP, 40 CFR 63.6(f)(1) and 63.6(h)(1).[2] The vacatur directly affects the NESHAP source categories/subparts that only incorporate the SSM provisions under 40 CFR 63.6(f)(1) and 63.6(h)(1) by reference and that contain no other source specific exemption for SSM events. The Court's vacatur does not directly impact those source categories that include a separate exemption or otherwise excuse compliance during SSM events because these other provisions were not challenged.

Since their adoption in 1994, 40 CFR 63.6(f)(1) and 63.6(h)(1) have exempted sources from the NESHAP emission limits during SSM events; however, other provisions have required sources to minimize emissions during such events. Now sources which relied solely on 40 C.F.R. §§ 63.6(f)(1) and 63.6(h)(1) for a SSM exemption must comply with their NESHAP limits during SSM events because the Court found that the NESHAP must apply continuously in accordance with Section 112 of the Clean Air Act.

Adam Kushner, U.S. EPA Director of Civil Enforcement at that time, issued a guidance letter on July 22, 2009 that identifies the specific source categories U.S. EPA has identified as being affected by the Court's vacatur. These standards are referred as "Table 1 MACTs" because they are listed in Table 1 of the Kushner Letter.

MACT Subpart R is one of the so called "Table 1 MACTs," which are directly affected by the Court's vacatur. However, the gasoline storage tanks and fugitive components at Colonial are only subject to work practice standards under MACT Subpart R. As specified in the Kushner letter, "certain 112(d) standards impose only work practice requirements with which a source should be able to comply during SSM events." Thus, no SSM "gap-filling" condition is necessary for this facility.

MACT Subpart ZZZZ

The five emergency generators (ID Nos. IES-9, IES-10, IES-11, IES-21, and IES-26) at Colonial are subject to the "NESHAP for Stationary Reciprocating Internal Combustion Engines," 40 CFR Part 63 Subpart ZZZZ (MACT Subpart ZZZZ). The requirements under MACT Subpart ZZZZ for these engines are summarized in the table below.

[2] Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008).

Emission Source ID	Requirements
IES-9 through IES-11	• Install a non-resettable hour meter on the engine • Change oil and filter every 500 hours of operation or annually • Inspect all hoses and belts every 500 hours of operation or annually and replace if necessary • Inspect air cleaner every 1,000 hours of operation or annually • Operate no more than 100 hours for maintenance and readiness testing • Conduct associated recordkeeping and reporting requirements.
IES-21 and IES-26	In accordance with 40 CFR 63.6590(c)(6), a new or reconstructed emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions complies with MACT Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under MACT Subpart ZZZZ.

These engines meet the definition of insignificant activities under 15A NCAC 02Q .0503(8) and will be moved to the insignificant activity list under this permit renewal/modification. Continued compliance with the MACT Subpart ZZZZ is anticipated.

MACT Subpart GGGGG
This subpart establishes national emissions limitations and work practice standards for HAPs emitted from site remediation activities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations and work practice standards. The site remediation activities (ID No. ES-REM) at Colonial are not subject to the requirements of MACT Subpart GGGGG, except for the recordkeeping requirements in 40 CFR 63.7881(c) because the facility can demonstrate the total annual quantity of HAP contained in the remediation material does not exceed 1 Mg per year.

Colonial provided calculation of the emissions from the remediation activities (ID No. ES-REM) in Permit Application No. 4100272.16A for Title V permit renewal. The facility calculated 16.7 tons per year of uncontrolled VOC from the emission source and 0.789 Mg HAP/yr. Thus, the facility demonstrated that emissions of HAPs are less than 1 Mg per year and it remains exempt from requirements of MACT Subpart GGGGG, except for recordkeeping and reporting.

Only minor changes to add references were made to the permit, and continued compliance is anticipated.

PSD
The facility is a major facility under Prevention of Significant Deterioration (PSD) and is not currently subject to any PSD regulations. This permit renewal/modification does not affect this status.

112(r)
The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the rule. This permit renewal/modification does not affect this status.

CAM

40 CFR Part 64 is applicable to any pollutant-specific emission unit, if the following three conditions are met:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- the unit's precontrol potential emission rate exceeds either 100 tons/yr (for criteria pollutants) or 10/25 tons/yr (for HAPs).

Colonial uses internal roofs and seals on its tanks to comply with 02D .0925 and 02D 0927. However, these measures are not considered control devices under CAM. Specifically, a control device as defined in 40 CFR 64.1 does not include "passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants…" Therefore, CAM is not applicable to this facility.

9. Facility Wide Air Toxics

The facility is not currently subject to North Carolina Air Toxics regulations. This permit renewal/modification does not affect this status.

10. Facility Emissions Review

Facility-wide potential emissions after the addition of the biodiesel fuel process were provided in permit Application No. 4100272.17A and are presented in the table below. The potential emissions have also been adjusted to remove the portable engines (ID Nos. PICE1, PICE2, and PICE3), which no longer require permitting as discussed previously in Section 6. Actual emissions, which include emissions of the portable engines, for calendar years 2011 to 2015 are provided in the header of this review.

Pollutant(s)	Potential Emissions (tpy)
PM/PM10/PM2.5	5.5
CO	4.0
NO_x	2.44
SO_2	0.001
VOC	1008
CO2 equivalence ($CO2_e$)	147
Total HAPs	54.5
Largest HAP (n-hexane)	17.1
Notes: CO2 equivalent is defined as the sum of the individual greenhouse gas pollutant emissions times their Global Warming Potential, converted to metric tons	

11. Compliance Status

DAQ has reviewed the compliance status of this facility. During the most recent inspection, conducted on May 4, 2016 by Davis Murphy of the WSRO, the facility appeared to be in compliance

with all applicable requirements. Additionally, a signed Title V Compliance Certification (Form E5) indicating that the facility was in compliance with all applicable requirements was included with the application for permit renewal.

Five-year compliance history

On February 23, 2017, a Notice of Deficiency for information reported in the facility's 2016 Annual Compliance Certification. Specifically, the facility reported that tanks 811 and 833 were emptied and refilled without being drained dry prior to refilling. These activities were not in accordance with 40 CFR Part 63 Subpart R, as referenced by Condition 2.1.D.1.d of Air Quality Permit 02939T22. The deficiency has been resolved.

12. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. Virginia and the Forsyth County Office of Environmental Assistance and Protection are affected areas within 50 miles of this facility and will be notified accordingly.

13. Other Regulatory Considerations

- A P.E. seal is NOT required for these applications.
- A zoning consistency determination was required for Application No. 4100272.17A and was included with the application submittal.
- A permitting fee of $929 was required for Application No. 4100272.17A and was included with the application submittal.

14. Recommendations

The applications for renewal and modification for Colonial Pipeline Company – Greensboro Facility in Greensboro, Guilford County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 02939T23.

ATTACHMENT 1
Updated Permit Condition for MACT Subpart R

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Thirty-Two Internal Floating Roof Gasoline Storage Tanks (ID Nos. 810 through 818, 820 through 826, and 830 through 845)

Fourteen Internal Floating Roof Transmix Tanks (ID Nos. 885 through 898)

Fugitive Components (e.g. valves, flanges, connectors, etc.; ID No. ES-22)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)	15A NCAC 02D .1111 (40 CFR 63, Subpart R)

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. Colonial Pipeline Company is "an existing" affected source. The pipeline breakout station operations at this facility shall comply with all requirements of 15A NCAC 02D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63 Subpart R "National Emission Standards for Gasoline Distribution Facilities."
b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.421 shall apply.
c. The Permittee shall comply with the requirements of 40 CFR 63, Subpart A "General Provisions," in accordance to the applicability of Subpart A to such sources, as identified in Table 1 of 40 CFR 63, Subpart R.

40 CFR 63.423 - Standards: Storage vessels.

d. Per 40 CFR 63.423(a), the Permittee shall equip each gasoline storage vessel with a fixed roof in combination with an internal floating roof according to the requirements in 40 CFR 60.112b (Subpart Kb) as follows:
    i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
    ii. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
        A. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

B. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

C. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

iii. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

40 CFR 63.424 - Standards: Equipment leaks.

e. Per 40 CFR 63.424, the Permittee shall comply with the following requirements.

i. The Permittee shall perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection methods incorporating sight, sound, and smell are acceptable.

ii. A logbook shall be used and shall be signed by the Permittee at the completion of each inspection. A section of the logbook shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

iii. Each detection of a liquid or vapor leak shall be recorded in the logbook. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in Section 2.2.A 1.e.iv below.

iv. Delay of repair of leaking equipment will be allowed upon a demonstration to the DAQ Regional Supervisor that repair within 15 days is not feasible. The Permittee shall provide the reason(s) a delay is needed and the date by which each repair is expected to be completed.

v. As an alternative to compliance with the provisions in Sections 2.2.A 1.e.i through iv above, the Permittee may implement an instrument leak monitoring program that has been demonstrated to the Administrator, EPA Region IV as at least equivalent.

vi. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(A) Minimize gasoline spills;

(B) Clean up spills as expeditiously as practicable;

(C) Cover all open gasoline containers with a gasketed seal when not in use;

(D) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

40 CFR 63.425 - Test methods and procedures.

f. Per 40 CFR 63.425(d), the Permittee shall comply with the requirements in 40 CFR 60.113b (Subpart Kb) as follows:

i. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the Permittee shall repair the items before filling the storage vessel.

ii. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the DAQ Regional Supervisor in the inspection report required in Section 2.2 A.1.h.i.(B) below. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

iii. For vessels equipped with a double-seal system as specified in Section 2.2 A.1.d.ii.(B) above:
   (A) Visually inspect the vessel as specified in Section 2.2 A.1.f.iv. below at least every 5 years; or
   (B) Visually inspect the vessel as specified in Section 2.2 A.1.f.ii above.

iv. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Sections 2.2 A.1.f.ii and f.iii.(B) above and at intervals no greater than 5 years in the case of vessels specified in Section 2.2 A.1.f.iii.(A) above. . In accordance with 40 CFR 63.8(f)(2), the DAQ has approved minor alternatives to the out of service inspections procedures, and the Permittee may elect to conduct inspections as allowed in the DAQ approval memorandum "Alternative Gasoline Tank Inspection Methods," dated September 2, 2003

v. Notify the DAQ Regional Supervisor in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections 2.2 A.1.f.i and f.iv above to afford the DAQ Regional Supervisor the opportunity to have an observer present. If the inspection required by Section 2.2 A.1.f.iv. above is not planned and the Permittee could not have known about the inspection 30 days in advance or refilling the tank, the Permittee shall notify the DAQ Regional Supervisor at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the DAQ Regional Supervisor at least 7 days prior to the refilling.

vi. Per 40 CFR 63.426 the Permittee may request alternative means of emission limitations for storage vessels per the requirements in 40 CFR 60.114b (Subpart Kb). For determining the acceptability of alternative means of emission limitation for storage vessels, the following provisions apply:
   (A) If, in the Administrator, EPA Region IV's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in Section 2.2 A.1.d above, the Administrator, EPA Region IV will publish in the Federal Register a notice permitting the use of the

alternative means for purposes of compliance with that requirement.

(B) Any notice under Section 2.2 A.1.f.vi.(A) above will be published only after notice and an opportunity for a hearing.

(C) Any person seeking permission under this section shall submit to the Administrator, EPA Region IV a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator, EPA Region IV determines is an accurate method of determining equivalence.

(D) The Administrator, EPA Region IV may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in Section 2.2 A.1.d above.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these test methods and procedures are not met.

40 CFR 63.427 - Continuous monitoring.

g. Per 40 CFR 63.427(c), the Permittee shall comply with the monitoring requirements per 40 CFR 60.116b (Subpart Kb) as follows:

i. The Permittee shall keep copies of all records required by this paragraph, except for the record required by Section 2.2 A.1.g.ii below, for at least 5 years. The record required by Section 2.2 A.1.g.ii. below will be kept for the life of the source.

ii. The Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

iii. Except as provided in Section 2.2 A.1.g.v. below, the Permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

iv. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(A) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(B) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(1) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference see 60.17), unless the DAQ Regional Supervisor specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(2) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(C) For other liquids, the vapor pressure:

(1) May be obtained from standard reference texts, or

(2) Determined by ASTM D287983, 96, or 97 (incorporated by reference see 60.17); or

(3) Measured by an appropriate method approved by the Administrator, EPA Region IV; or
(4) Calculated by an appropriate method approved by the Administrator, EPA Region IV.

v. The Permittee of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
(A) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in Section 2.2 A.1.g.iv above.
(B) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in Section 2.2 A.1.d. above, an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
(1) ASTM D287983, 96, or 97 (incorporated by reference see 60.17); or
(2) ASTM D32382 or 94 (incorporated by reference see 60.17); or
(3) As measured by an appropriate method as approved by the Administrator, EPA Region IV.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these monitoring requirements are not maintained.

40 CFR 63.428 - Reporting and Recordkeeping.

h. Per 40 CFR 63.428(d), the Permittee shall keep records and furnish reports required by this section for at least 5 years per the requirements in 40 CFR 60.115b (Subpart Kb) as follows:
i. After installing the fixed roof and internal floating roof, the Permittee shall meet the following requirements:
(A) Keep a record of each inspection performed as required by Sections 2.2 A.1.f.i through f.iv. above. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
(B) If any of the conditions described in Section 2.2 A.1.f.ii above are detected during the annual visual inspection required by Section 2.2 A.1.f.ii. above, a report shall be furnished to the DAQ Regional Supervisor within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
(C) After each inspection required by Section 2.2 A.1.f.iii. above that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Section 2.2 A.1.f.iii.(B) above, a report shall be furnished to the DAQ Regional Supervisor within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections 2.2 A.1d.i. through iii. or f.i. above and list each repair made.

ii. The Permittee shall record the following information in the logbook for each leak that is detected:
(A) The equipment type and identification number;
(B) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);
(C) The date the leak was detected and the date of each attempt to repair the leak;
(D) Repair methods applied in each attempt to repair the leak;
(E) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;
(F) The expected date of successful repair of the leak if the leak is not repaired within 15 days; and

(G) The date of successful repair of the leak.

iii. The Permittee shall include in a semiannual report to the DAQ Regional Supervisor the number of equipment leaks not repaired within 5 days after detection.

iv. The Permittee shall submit an excess emissions report to the DAQ Regional Supervisor in accordance with §63.10(e)(3), whether or not a CMS is installed at the facility. Equipment leaks for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:
(A) The date on which the leak was detected;
(B) The date of each attempt to repair the leak;
(C) The reasons for the delay of repair; and
(D) The date of successful repair.

i. In addition to any other reporting, the Permittee shall submit a summary report of the monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified